



Department of Defense
Individual's Briefing

SMALLPOX

Version: 2 April 03



Key Messages

- 1. Smallpox would disrupt military missions,
because it is contagious and deadly**
- 2. Smallpox vaccine prevents smallpox,
but requires very careful use**
- 3. Preserving the health and safety of our people
are our top concerns**
- 4. Smallpox protection helps our War on Terrorism:
New threats require new measures of force protection**



Threat

***Smallpox would disrupt military missions,
because it is contagious and deadly***

- **Smallpox is a contagious disease that spreads from one person to another**
- **Before smallpox was eradicated, it killed many millions of people over hundreds of years**
- **Terrorists or governments hostile to US may have or could obtain variola virus**
- **A smallpox outbreak would significantly affect military readiness**



Vaccine Effectiveness

Smallpox vaccine prevents smallpox, but requires very careful use

- **World Health Organization (WHO) used this vaccine to eradicate natural smallpox**
 - **95% of people are protected within 10 days**
 - **Solid protection lasts for 3 to 5 years**
 - **Partial protection lasts longer**
 - **But people need to be revaccinated, if too much time has passed (≥ 5 to 10 years)**
 - **Can protect up to 3 days after exposure**
- **Contains live vaccinia virus, cannot cause smallpox**
- **Same vaccine given since World War II**



Smallpox Vaccine

FDA recently licensed a supply of smallpox vaccine made by Wyeth Laboratories, called Dryvax®.

- **The vaccine is made from virus called *vaccinia*, which is another “pox”-type virus related to smallpox**
- **The vaccine helps body develop immunity to smallpox**
- **Vaccine used for Service Members passes all tests required by Food and Drug Administration (FDA)**
- **Smallpox vaccine was very first vaccine (1796) and has been used successfully for over 200 years**



Expected Effects, Side Effects

- **Expected: A red blister that should turn white 6 to 8 days after vaccination. Then it will turn into a scab.**
 - **This shows successful vaccination.**
 - **If no white blister, may need another vaccination.**



See also:

www.bt.cdc.gov/training/smallpoxvaccine/reactions/normal.html#

Most people experience normal, mild reactions, such as sore arm, fever, headache, body ache, or fatigue.

Symptoms usually peak 8 to 12 days after vaccination.



Side Effects—Serious

- In past, about 1,000 out of 1,000,000 people had reactions that were serious, but not life-threatening
 - Most involved vaccine virus elsewhere on body
 - Many preventable through better hand washing!
- 14 to 52 people out of 1,000,000 vaccinated for first time had potentially life-threatening reactions
 - 1 or 2 people of 1,000,000 may die as a result
- Serious side effects are generally more rare after revaccination but may require prolonged care
- To reduce risk of side effects, exempt people with immune problems or certain skin or heart conditions



Serious Adverse Events

- **Serious reactions that may require medical attention:**
 - Accidental spread of virus to another body part or another person, such as the eye
 - Widespread rash where blisters appear, away from vaccination site (generalized vaccinia)
 - Allergic rash after vaccination (erythema multiforme)
 - Inflammation of or around heart (myo-pericarditis)
- **Life-threatening reactions that need immediate attention:**
 - Serious skin rashes in people such as those with eczema or atopic dermatitis (eczema vaccinatum)
 - Ongoing infection of skin with tissue destruction (progressive vaccinia or vaccinia necrosum)
 - Postvaccinal encephalitis, inflammation of the brain
 - Chest pain or shortness of breath



Care of Vaccination Site

Vaccine virus remains at the site, until scab falls off, & can infect others

- Vaccine recipients need to be careful and informed
- Vaccine recipients need to educate close contacts about risk

- 1. Don't touch any vaccination site**
- 2. If you touch it by accident, wash your hands right away**
- 3. Don't let others touch vaccination site or materials that covered it**
 - Wear gloves if assisting with site care
- 4. Handle your own laundry/towels and place in hot soapy water**



This woman touched her vaccination site, then touched her eye. She recovered with a scarred eyelid.



Hand Washing & Hand Hygiene

- Wash hands with soap and warm water
 - rub hands together vigorously **for at least 10 seconds**
 - cover all surfaces of the hands and fingers
 - rinse hands with warm water
 - dry hands thoroughly with a **paper towel**
 - use paper towel to **turn off the faucet**
- Alcohol-based waterless hand rinse, e.g., CalStat®
 - Excellent alternative if hands are not visibly soiled
 - Apply product to palm and rub hands together, covering all surfaces of hands and fingers, until hands are dry
 - May have sticky feel after repeated use – wash hands with soap and water as needed



Hand Washing & Hand Hygiene

To prevent accidental virus exposure to the genital or rectal area, wash your hands **BEFORE** using the bathroom.



After using the toilet,
Wash your hands again.



Be extremely careful with your contact lenses!

- Wash hands thoroughly before you touch your eye or the lenses
- Wearing your glasses until site heals is preferred



Care of Vaccination Site

Follow these instructions carefully, or you could harm yourself or others. Ask questions if anything is unclear.

- **Until your scab falls off**, avoid spreading vaccine virus to close contacts, particularly with people exempted from getting vaccinated
- **Do not share a bed, bunk, or cot with people who are exempted from vaccination**
 - You can spread vaccine virus to anyone, so
Wash Your Hands
- **Do not share clothes, towels, linen, or toiletries**
 - You can spread vaccine virus to anyone, so
Wash Your Hands



Care of Vaccination Site

Follow these instructions carefully, or you could harm yourself or others. Ask questions if anything is unclear.

- **Wear sleeves to cover the site.**
- Wear sleeves at night, if you sleep in bed with someone.
- **Use bandages.** Change them every few days.
- Discard bandages in sealed or double plastic bags. You may carefully add bleach, alcohol, or soap, if desired
- **Keep site dry.** Bathe normally, but dry the site last, with something disposable. Avoid rubbing. Avoid swimming or public bathing facilities
- **Launder** clothing, towels, and sheets in hot water with detergent or bleach.
- When the scab falls off, flush it down the toilet. Soap, alcohol, sunlight, chlorine, and bleach kill the virus.
- **Wash your hands – Hand washing, hand washing!**



Exemptions to Vaccination

Medical exemptions are given for medical conditions that increase the risk of serious adverse events

- Some people should not get smallpox vaccine, except under emergency situations. A Medical Exemption is given IF:
 - Your immune system is not working fully (by disease, medication, radiation)
 - You have or had eczema or atopic dermatitis
 - Red, itchy, scaling rash lasting more than 2 weeks, comes & goes
 - You have active skin diseases, such as:
 - Burns, psoriasis, contact dermatitis, chickenpox, shingles, impetigo, uncontrolled acne, until it clears up or is under control
 - You are pregnant
 - You have a close contact with someone with the risk factors above ↑
 - You have a serious heart disease (such as angina, heart attack, congestive heart failure, other cardiac problem) or risk factors
 - You use steroid eye drops or ointment or recovering from eye surgery
 - You are breastfeeding
 - You are allergic to smallpox vaccine or a component such as polymyxin B, streptomycin, tetracycline, neomycin, or latex



Pregnancy & Infant Care

- **Defer smallpox vaccinations until after pregnancy:**
 - **When pregnant women get smallpox vaccine, pregnancy usually goes well**
 - **In rare cases, vaccine virus caused vaccinia infection of the fetus**
- **Women: Avoid getting pregnant for 4 weeks after smallpox vaccination**
- **In an outbreak, personal benefit from vaccination may outweigh risks**
- **Take care to prevent spread of vaccine virus to infants up to 1 year of age. ALWAYS wash hands before handling infant (e.g., feeding, changing diapers)**
- **Smallpox vaccine not recommended for nursing mother, as it could put infant in close contact with mother's vaccination site**



Vaccines

***Preserving the health and safety of our people
is our top concern***

- **Vaccines will keep you and your team healthy**
- **Healthy troops complete their missions**
- **Vaccines:**
 - **Shield you from dangerous germs**
 - **Keep units fit to fight**
 - **Help you return home safely**
- **Vaccines saved more lives than any other medical invention, more than antibiotics or surgery. Only clean water has saved more lives**



Adverse Event Reporting

- **Vaccine Adverse Event Reporting System (VAERS)**
 - FDA and CDC review 100% of reports submitted
 - Anyone can submit a VAERS form, online preferred
<https://secure.vaers.org>
 - Reporting with medical help results in more detail
- **DoD requires a VAERS form for:**
 - Loss of duty 24 hours or longer (1 duty day or more)
 - Hospitalization
 - Suspected vaccine vial contamination
 - Auto-inoculation or contact vaccinia
- **Other submissions encouraged**
- **Report to VAERS at www.vaers.org or call 800-822-7967**



Reserve Adverse-Event Care

- **Adverse events after DoD- or USCG-directed vaccinations are line-of-duty conditions**
- **Someone with an adverse event in a non-duty status possibly associated to any vaccination:**
 - **Seek medical evaluation at a DoD, USCG, or civilian medical treatment facility, if necessary**
 - **Must report the event to your unit commander or designated representative as soon as possible**
 - **See local medical department or squadron for guidance**
- **Commander will determine Line of Duty and/or Notice of Eligibility status, if required**



Vaccine Safety

- Carefully read & complete screening form
 - You are helping accurately document that it is safe to give you the vaccine
- Ask questions if you are unsure
- Contact family members who may know about childhood history of recurrent rashes like eczema
- Talk to close contacts and family members about the vaccination program and safety precautions
- Ask for assistance at any point, if needed by you or your close contacts or if you have safety concerns



Information Sources

- Chain of Command
- Website: www.smallpox.army.mil; www.anthrax.mil
- E-Mail: vaccines@amedd.army.mil
- Toll-Free: **877.GET.VACC**
- DoD Vaccine Clinical Call Center: **866.210.6469**
- DoD Vaccine Healthcare Centers, for help with complicated adverse-event management: **202.782.0411**
 - Askvhc@amedd.army.mil www.vhcinfo.org
- Information for Civilian Healthcare Providers: Call the Military Treatment Facility (MTF) where the member is enrolled –OR– contact the Military Medical Support Office (MMSO) **888-647-6676** if the member is not enrolled to an MTF.